

REMARKS

The Drawing amendments find support in the specification. No new matter has been added. A request to approve drawing changes is included herewith. Applicants hereby respectfully request that the drawing amendments be entered.

The Specification has been amended to correct previously undetected informalities and provide citations. No new matter has been added.

The Abstract has been replaced. Please replace the Abstract with the new Abstract enclosed herewith on a separate paper. No new matter has been added.

Claims 1-15 have been canceled without prejudice. Claims 16-45 have been added to the present application. No new matter has been added.

The Summary of the Invention has been deleted.

Attached hereto is a marked-up version of the changes made to the specification and claims by the current amendment. The attached is captioned **"Version with markings to show changes made."** Additionally, attached is a replacement Abstract on a separate paper.


In conclusion, Applicants respectfully submit that claims 16-45 are in condition for allowance, and Applicants respectfully request allowance of such claims.

Please charge any shortages and credit any overages to our Deposit

Account No. 501569.

Date: March 13, 2002

Respectfully submitted,
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please amend the specification as follows:

In the Summary of the Invention:

Please delete the Summary of the Invention.

SUMMARY OF THE INVENTION

~~— A method and apparatus for processing and representing error messages within a computer-aided design environment is described. An occurrence of a software event that results in an error or a warning is recognized. An indication of the error/warning is stored in an error/warning storage structure. A result is returned from a function call that indicates that the error/warning indication has been stored in the error/warning storage structure. Subsequent function call returns do not indicate that the error/warning indication has been stored in the error/warning storage structure. In one embodiment, a hierarchical graphical error/warning log is provided that provides varying levels of error/warning information in response to user input.~~

In the Detailed Description:

Please replace the paragraph beginning at page 8, line 22, with the following rewritten paragraph:

When an instruction cannot be executed properly, error notification is sent to error/warning storage structure 380 by notifier 370. In one embodiment, notifier 370 is a "thin wrapper" class that is described in greater detail below. Alternatively, notifier 370 can be a sequence of instructions of function(C) 340 or an independent called function (not shown in Figure 3), which results in higher overhead than the thin wrapper class embodiment. Function(C) 340 returns results to function(B) 320 via 350. Function(B) 320 in turn returns results to function(A) 300 via 360.

Please replace the paragraph beginning at page 9, line 6, with the following rewritten paragraph:

Based on results returned from function(B) 320, function(A) 300 is notified that at least one error and/or warning occurred and that at least one called function did not successfully complete execution. Function(A) 300 retrieves error results from error/warning storage structure 380, via 390, to report the error/warning results to the user of the computer aided design tool. One embodiment for presenting the report is described in greater detail below.

In the Abstract:

Please replace the Abstract with the new Abstract enclosed herewith on a separate paper.

The invention includes computer instructions that operate to generate a failure indication upon encountering a failure during an operation performed for a user design. The instructions further operate to automatically facilitate a user in determining a solution for the failure. As a result, the invention provides improved error reporting and recovery.

~~A method and apparatus for processing and representing error messages within a computer-aided design environment is described. The present invention allows error/warning information to be stored in a central storage location by the function in which the error/warning causing fault occurs. The function then returns a result indicating that the function did not perform as expected. The calling function does not add an error/warning message of its own when returning, if necessary, to another calling function. Thus, only a single warning/error message can be stored and used for reporting the fault that caused the error/warning. In one embodiment, a hierarchical graphical error/warning log provides varying levels of error/warning information in response to user input.~~